

Section 5-1: Solving Inequalities by Addition and Subtraction

By the end of this lesson, you should be able to answer:

- How do you solve and graph inequalities with addition or subtraction?

Define the following:

1. Set-builder notation:

Notations:

$<$

$>$

\leq

\geq

Example 1: Solve $c - 12 > 65$. Write your solution in set-builder notation. Graph your solution.

Example 2: Solve the inequality $x + 23 < 14$. Write your solution in set-builder notation. Graph your solution.

Example 3: Solve $12n - 4 \leq 13n$. Write your solution in set-builder notation. Graph your solution.

Example 4: Matt Mitarnowski wants to buy season passes to two theme parks. If one season pass is \$54.99 (tax included) and she has \$100 to spend on both passes, the second season pass must cost no more than what amount?

Summarizer: Compare and contrast the graphs of $a < 4$ and $a \leq 4$.

Problem Set 1: p. 286 #1-11

Problem Set 2: p.286 #12-27 multiples of 3, #30-40 all

"I have found power in the mysteries of thought." - Euripides